

**REMARKS**

After entry of this amendment claims 1-24 will be pending. Applicants thank the Examiner for her indication that claims 18-24 are allowable as written and that claims 9, 10 and 17 would be allowable if rewritten in independent format. The amendments to claims 1, 6 and 15 will be discussed in more detail below. Support for the amendments can be found at page 2, line 27 of the specification. By action taken here, Applicant in no way intends to surrender any range of equivalents beyond that needed to patentably distinguish the claimed invention as a whole over the prior art. Applicant expressly reserves all such equivalents that may fall in the range between Applicant's literal claim recitations and combinations taught or suggested by the prior art.

**Obviousness-Type Double Patenting Rejection**

The Examiner provisionally rejected claims 1-5 and 15-17<sup>1</sup> under the judicially created doctrine of obviousness type double patenting over claims 1, 2, 5, 8-10, 23, 24 and 33 of co-pending application 09/644,634. Applicants acknowledge this rejection and will take further action under advisement when the other outstanding rejections in this application are withdrawn.

**Rejection of claims 1 and 3-5 under 35 U.S.C. §102(e)**

The Examiner rejected claims 1 and 3-5 under 35 U.S.C. §102(e) as anticipated by U.S. Patent No. 6,183,901 to Ying et al. ("Ying"). This rejection is respectfully traversed.

Claim 1 has been amended to clarify that the plates in question are impermeable to gas. As acknowledged by the Examiner in the first office action (paragraph 13) and in the present office action (paragraphs 20 and 21), Ying discloses the use of a coating only on porous separator plates, i.e., plates that are gas permeable.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference. See MPEP §2131. Since coatings on gas impermeable plates is not disclosed, taught or suggested in Ying, the rejection is unsupported by the art.

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<sup>1</sup> It appears that the provisional rejection of claim 17 is in error because the Examiner acknowledged that claim 17 contained allowable subject matter. Clarification is requested.

For at least this reason, independent claim 1 is allowable over the applied art. Claims 3-5, which depend from claim 1, are likewise allowable over the applied art. Applicants respectfully request that this rejection be withdrawn.

Rejection of claims 1, 4 and 5 under 35 U.S.C. §102(e)

The Examiner rejected claims 1, 4 and 5 under 35 U.S.C. §102(e) as anticipated by U.S. Patent No. 6,337,120 to Sasaki et al. ("Sasaki"). This rejection is traversed.

Claim 1 has been amended to clarify that the plates in question are impermeable to gas. As acknowledged by the Examiner in the first office action (paragraph 15) and in the present office action (paragraph 22), Sasaki discloses the use of a coating only on porous carbon plates, i.e., plates that are gas permeable.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference. See MPEP §2131. Since coatings on gas impermeable plates is not disclosed, taught or suggested in Sasaki, the rejection is unsupported by the art.

For at least this reason, independent claim 1 is allowable over the applied art. Claims 4 and 5, which depend from claim 1, are likewise allowable over the applied art. Applicants respectfully request that this rejection be withdrawn.

Rejection of claims 6-8, 11, 12, 15 and 16 under 35 U.S.C. §103

The Examiner rejected claims 6-8, 11, 12, 15 and 16 under 35 U.S.C. §103 as being obvious over Sasaki in view of U.S. Patent No. 4,025,578 to Siebert ("Siebert") and further in view of U.S. Patent No. 4,510,007 to Stucke ("Stucke"). This rejection is respectfully traversed.

The problems with Sasaki discussed above with respect to the anticipation rejection apply with equal force to the present obviousness rejection.

Applicants agree that Sasaki does not disclose the use of infrared curable sealant materials. Siebert and Stucke, however, do not fill all the gaps in Sasaki. As demonstrated above, Sasaki discloses the use of a gasket only on a porous carbon plate. Combining Sasaki with Siebert and Stucke will not produce the presently claimed invention. Using the materials disclosed in Siebert and Stucke to make the gasket of Sasaki would still produce a gasket that is integral to a porous carbon separator. Neither Siebert nor Stucke disclose or suggest

moving the gasket from the porous carbon separator to a non-porous fuel cell plate, as in presently amended claims 6 and 15.

Because Sasaki, Siebert and Stucke do not teach or suggest each feature of the presently claimed invention, the Examiner fails to establish a prima facie case of obviousness. See MPEP §2143. Accordingly, Applicant respectfully requests that this rejection be withdrawn.

Rejection of claim 13 and 14 under 35 U.S.C. §103

The Examiner rejected claims 13 and 14 under 35 U.S.C. §103 as being obvious over Sasaki in view of Siebert and Stucke, and further in view of EP 503864A2 to Bennett et al. (“Ciba-Geigy”). This rejection is respectfully traversed.

The problems with Sasaki discussed above with respect to the anticipation rejection apply with equal force to the present obviousness rejection.

Applicants agree that Sasaki, Siebert and Stucke do not disclose the use of air release agents and slip aids. Ciba-Geigy, however, does not fill all the gaps in Sasaki, Siebert and Stucke. As demonstrated above, Sasaki discloses the use of a gasket only on a porous carbon plate. Combining Sasaki, Siebert and Stucke with Ciba-Geigy will not produce the presently claimed invention. Using the materials disclosed in Siebert, Stucke and Ciba-Geigy to make the gasket of Sasaki would still produce a gasket that is integral to a porous carbon separator. Ciba-Geigy does not disclose or suggest moving the gasket from the porous carbon separator to a non-porous fuel cell plate, as in presently amended claims 6 and 15.

Because Sasaki, Siebert, Stucke and Ciba-Geigy do not teach or suggest each feature of the presently claimed invention, the Examiner fails to establish a prima facie case of obviousness. See MPEP §2143. Accordingly, Applicants respectfully request that this rejection be withdrawn.

Rejection of claim 2 under 35 U.S.C. §103

The Examiner rejected claim 2 under 35 U.S.C. §103 as being obvious over Sasaki in view of U.S. Patent No. 6,274,262 to Canfield (“Canfield”). This rejection is respectfully traversed.

Applicants agree that Sasaki does not disclose the use of screen printing. One skilled in the art would not have any motivation to combine Sasaki and Canfield. They disclose two

distinct methods of creating gaskets that cannot be combined. Sasaki discloses gaskets that are molded from a liquid rubber where the liquid rubber invades the pores of the carbon plate to help anchor the gasket when it is cured. Canfield, on the other hand, discloses a gasket that is made through screen printing or as a paraphorm<sup>2</sup> seal on a flow plate with flow channels. Because of the flow channels, the flow plates of Canfield must be non-porous. The methods of Sasaki and Canfield are incompatible; one is designed for porous materials and the other is designed for non-porous materials. Thus, Sasaki and Canfield teach away from each other, showing that there is no motivation to combine the references.

In addition, Canfield disparages and thus teaches away from the molded gaskets used in Sasaki. At column 4, lines 25-26, Canfield states “[c]onventionally, each flow plate includes a gasket groove on its upper surface to receive a flow gasket. Thus, the gasket groove defines the ‘up side’ of the flow plate.” One skilled in the art would understand that a molded gasket would normally be placed in the gasket groove. Canfield states that no gasket groove is needed in the flow plates and that the gasket can be applied through other methods; i.e., screen printing. Thus, one skilled in the art would not be motivated to combine Sasaki with Canfield.

Because there is no motivation to combine the structure of Sasaki with the teachings of Canfield to meet the claimed invention, the Examiner fails to establish a prima facie case of obviousness. See MPEP §2143. Accordingly, Applicant respectfully requests that this rejection be withdrawn.

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<sup>2</sup> Although far from clear, it is believed that Canfield is referring to a beaded seal produced by Parker under the Parphorm trade name. See Fig. 2 of Canfield.

**CONCLUSION**

For at least these reasons, this application is now in condition for allowance. It is believed that any additional fees due with respect to this paper have already been identified in any transmittal accompanying this paper.

However, if any additional fees are required in connection with the filing of this paper that are not identified in any accompanying transmittal, permission is given to charge account number 18-0013 in the name of Rader, Fishman and Grauer PLLC.

If the Examiner has any questions or comments, she is kindly urged to call the undersigned to facilitate prosecution.

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Respectfully submitted,



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